

ABSTRACT

An X-ray microscope apparatus includes an X-ray generator, a photocathode disposed on a path of X-rays for producing electrons when irradiated with X-rays generated by the X-ray generator, an electron image enlarging device having an acceleration anode for accelerating electrons produced by the photocathode and a magnetic lens for enlarging and focusing an electron beam of electrons emitted by the photocathode, an electron beam detecting device for detecting the electron beam focused thereon by the electron image enlarging device; and an image processing device for processing an electron image formed by the electron beam detecting device. The X-ray microscope apparatus can be formed in compact construction.